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NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 12/11/2009

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

BLAIR, DOUGLAS B

ART UNIT

PAPER NUMBER

2442

DATE MAILED: 12/11/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/842,801

04/27/2001

Laurent Baretzki

206483US2X

2836

TITLE OF INVENTION: REDUNDANT INPUT/OUTPUT MANAGEMENT DEVICE, NOTABLY FOR DATA ROUTING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/11/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

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22850 7590 12/11/2009

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

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Hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/842,801 04/27/2001 Laurent Baretzki 206483US2X 2836

TITLE OF INVENTION: REDUNDANT INPUT/OUTPUT MANAGEMENT DEVICE, NOTABLY FOR DATA ROUTING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 03/11/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
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BLAIR, DOUGLAS B 2442 709-224000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,801	04/27/2001	Laurent Baretzki	206483US2X	2836
22850	7590	12/11/2009	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			BLAIR, DOUGLAS B	
			ART UNIT	PAPER NUMBER
			2442	
DATE MAILED: 12/11/2009				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 733 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 733 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	09/842,801	BARETZKI, LAURENT	
	Examiner	Art Unit	
	DOUGLAS B. BLAIR	2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 7/24/2009.
2. ☒ The allowed claim(s) is/are 17-20,22-26,28-37 and 39-44.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other ____. |

/Douglas B Blair/
Primary Examiner, Art Unit 2442

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brian Epstein (Reg. No. 60,329) on 11/5/2009.

The Examiner informed the applicant that claims 47-50 would be withdrawn from consideration by original presentation. Claims 47-50 are drawn to a subcombination of the previously examined combination. The search required for claims 47-50 would require an entirely different scope of references to be considered in order to determine patentability. Mr. Epstein agreed to cancel claims 47-50 in order to move the current case to allowance as the applicant's response filed on 7/24/2009 were persuasive in showing why the previous claims were allowable over the prior art.

The application has been amended as follows on the next page:

In the claims:

1-16. (Canceled)

17. (Currently Amended) A redundant routing system including a processor, the system comprising:

a first routing unit configured to manage input data and output data;

a second routing unit configured to manage said input data and said output data;

a network interface configured to connect said first and second routing units; and

a standby bus interface configured to connect said first and second routing units to each other, wherein,

when said first routing unit is managing said input data and said output data, said second routing unit ~~is configured to detect~~ detects a failure of said first routing unit by monitoring both ~~[[said]]~~ the network and the standby bus interfaces using messages sent over both the network and the standby bus interfaces,

when said second routing unit detects ~~[[a]]~~ said failure of said first routing unit, said second routing unit ~~is configured to deactivate~~ activates a reset algorithm stored in said first routing unit so that said first routing unit no longer manages said input data and said output data and said second routing unit ~~is further configured to start~~ starts managing said input data and said output data, and

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a memory address of the reset algorithm stored in said first routing unit is stored in a set
~~[[sets]] of parameters for interpreting the messages, including configuration parameters of an application configured to run on at least one of the first and second routing units, are configured to be stored in at least one configuration file included in [[both]] said first and second routing unit units, and when said first routing unit detects a failure in itself, said first routing unit is configured to deactivate itself to cease managing said input and output data and to allow said second routing unit to start managing said input and output data.~~

18. (Previously Presented) The system of claim 17, wherein said first and second routing units have identical functions and include identical software and configuration files.

19. (Currently Amended) The system of claim 17, further comprising:

at least one serial link connecting said first and second routing units to at least one other system.

20. (Previously Presented) The system of claim 19, wherein said at least one serial link comprises at least one Y-split cable.

21. (Canceled)

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22. (Previously Presented) The system of claim 17, wherein said first routing unit is configured to deactivate itself and to activate said second routing unit by a change in an impedance of at least one input/output serial port.

23. (Previously Presented) The system of claim 22, wherein the change in impedance imparts putting said at least one input/output serial port in a high impedance state.

24. (Currently Amended) The system of claim 17, wherein said second routing unit is configured to deactivate said first routing unit by sending a reset command to said first routing unit via the standby bus interface, said reset command executing ~~[[a]]~~ the reset algorithm on said first routing unit.

25. (Currently Amended) The system of claim 17, wherein the messages are polling messages that are exchanged via ~~[[said]]~~ the network and the standby bus interfaces, said polling messages carrying information relevant to detecting said failure.

26. (Currently Amended) The system of claim 25, wherein said second routing unit is configured to detect said failure of said first routing unit when said polling messages are not properly responded to on at least one of ~~[[said]]~~ the network and the standby bus interfaces.

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27. (Canceled)

28. (Currently Amended) The system of claim 17, wherein, when launching ~~[[the]]~~ an application on said first and second routing units, the ~~[[sets]]~~ set of parameters, which includes configuration parameters of said application, is ~~[[are]]~~ loaded into a random access memory (RAM).

29. (Previously Presented) The system of claim 17, wherein said network interface is configured to link said first and second routing units with at least one remote client system.

30. (Previously Presented) The system of claim 17, wherein said network interface is the Internet.

31. (Previously Presented) The system of claim 17, wherein said network interface is an Ethernet network.

32. (Previously Presented) The system of claim 17, wherein said network interface is a digital local area network (LAN).

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33. (Currently Amended) The system of claim 17, wherein said first and second routing units are configured to operate in Open Communication Processor (OCP) mode.

34. (Currently Amended) The system of claim 17, further comprising:
an alert protocol to warn of ~~a possible~~ said failure of the system.

35. (Previously Presented) The system of claim 17, wherein said first and second routing units are data routers.

36. (Previously Presented) The system of claim 17, wherein said first and second routing units are data servers.

37. (Currently Amended) The system of claim 18, wherein, after said second routing unit is activated and starts managing said input data and said output data, said first routing unit is ~~configured to detect~~ detects a failure of said second routing unit.

38. (Canceled)

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39. (Currently Amended) A redundant routing system ~~including a processor~~, the system comprising:

first routing means for managing input data and output data;

second routing means for managing said input data and said output data;

networking means for connecting said first and second routing means; and

connecting means for connecting said first and second routing means to each other,

wherein,

when said first routing means manages said input data and said output data, said second routing means detects a failure of said first routing means using both said networking and the connecting means by using messages sent over both ~~[[the]]~~ said networking and connecting means, ~~[[and]]~~

when said second routing means detects ~~[[a]]~~ said failure of said first routing means, said second routing means ~~deactivates~~ activates a means for resetting said first routing means stored in said first routing means so that said first routing means no longer manages said input data and said output data and said second routing means starts managing said input data and said output data, and

said ~~first and~~ second routing means ~~each include~~ includes configuration means, ~~[[for]]~~ storing a set ~~[[sets]]~~ of parameters including a memory address of the means for resetting stored in said routing means ~~for interpreting the messages, the sets of parameters including configuration parameters of an application configured to run on at least one of the first and second routing means, and when said first routing means detects a failure in itself, said first~~

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~~routing means deactivates itself to cease managing said input and output data, and allows
said second routing means to start managing said input and output data.~~

40. (Currently Amended) The system of claim 39, further comprising:

linking means ~~[[or]]~~ for connecting said first and second routing means to at least one other system.

41. (Canceled)

42. (Currently Amended) The system of claim 39, further comprising:

polling means for exchanging the messages, which are ~~being~~ polling messages, via said networking and connecting means, said polling messages carrying information relevant to detecting said failure.

43. (Currently Amended) The redundant routing system of Claim 17, wherein the at least one configuration file ~~further~~ includes:

the messages themselves;

at least one transmission interval between the messages; and

at least one time limit between two of the messages.

44. (Currently Amended) The redundant routing system of Claim 39, wherein ~~each~~ the configuration means ~~further~~ includes:

the messages themselves;

at least one transmission interval between the messages; and

at least one time limit between two of the messages.

45-50. (Canceled)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS B. BLAIR whose telephone number is (571)272-3893. The examiner can normally be reached on 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Douglas B Blair/
Primary Examiner, Art Unit 2442